EXPANSION PROJECT
US FOREST SERVICE

1936216 - R8 SEMS

Black Hills National Forest Nemo Ranger Dist. 460 Main Street Deadwood, SD 57732

Reply to: 2810

Date: February 5, 1990

Rex Outzen
Brohm Mining Corp.
P.O. Box 485
Deadwood, SD 57732

Dear Rex:

A meeting has been scheduled for March 6, 1990 to discuss the development of the administrative record for the proposed Gilt Edge Expansion Project. It is important that the proponent, third party contractor, and the Forest Service understand and agree to the contents, format, and structure of the administrative record.

This meeting is being conducted for the sole purpose of discussing the administrative record. Meeting objectives do not include the analysis of the proposal under the NEPA process or access to the records under the Freedom of Information Act.

The following individuals have been invited to the meeting: Rex Outzen, Brohm Mining Corporation and Randy Parcell, attorney for Brohm Mining Corporation; Phil Hackney, ENSR Corporation; and Charles Lennahan, Office of General Counsel. I will attend this meeting along with several other Forest Service individuals that are involved with the proposal.

The meeting will start at 1:00 p.m. at the USFS Experimental Station conference room, South Dakota School of Mines and Technology, 501 E. St. Joseph Street, Rapid City. Would you please advise Mr. Parcell of the date and location of the meeting.

If you have any questions regarding this meeting, please contact me at 605/578-2744.

Sincerely,

District Ranger

cc: Phil Hackney, ENSR Charles Lennahan, OGC Stan Sylva, SO

ackford

DEB: js



TRIBING THE Letinor Large 12 Richest Shether

5 10 10

1. Sec. 1. 1774 New Programme 1775 TOURS TO BEEN STANDED OF THE STAND OF THE ST

Ough, Edit

yairyh gen

SHEAR SHOWED TO THE BOOK

HARL GREEK CO. Sec. 7.1173 atorijan is Make the transfer Boar Greenen

JAHR BAZE

BROHM MINING CO. काराज्ञान्त्रक अस्तु अतिकत्त्व स्थाप स्थापना व industrial facts the fire endies that parts postured in and the Teaching the education throught record for the proposed talk Adge Expension Profect. He am A recting tespress postations in the Caron C, 1790 to discuss the development of

27 C 1111 950 0%

SE PROPER SEPTAM OF COURT

Temes - khon ha s The second of th AND THE REPORT OF THE PROPERTY THE FOR

ह के लंबालिंग हैंदर है। देशकर कर कर पहल E COM TO THE PLAN SEE MELTS BELLEVILLE The court related with the profession of the break offers

individual in the contract that it is a second of the contract. econtraction of the figure and the encountraction of the contraction of the contraction

go may rook to both in how in making agains that before the graph and in making the first of TOWN FORET GRAVAS FORMUL OF SERVICES AND ACTIONALMS GOT IN THE POINTS LONGING And the full after steen an indicting that he first the first make indiction for the conservation

and the willing in the place of the property of the contraction of the property by the confidence of the

医网络神经病毒

A CONTRACTOR

The state of the s OUT OF ATT THE SECTION OF

the second section of the second

Nemo Ranger Dist. 460 Main Street Deadwood, SD 57732

Reply to: 2810

(90-1)

Date: February 16, 1990

Mr. Lance Hubbard Brohm Mining Corp. P.O. Box 485 Deadwood, SD 57732

Dear Mr. Hubbard:

Attached to this letter is the Decision Notice approving your proposed exploration plan, for the Hoodoo Gulch Area, subject to the mitigation measures which were developed in the Environmental Assessment prepared for your proposal.

Approval of this operating plan does not constitute now, or in the future, recognition or certification of the validity of any mining claim to which it may relate, or to the mineral character of the land on which it lies.

This decision is appealable and you can elect which process to use for obtaining review of the decision, but in so doing you thereby forfeit all right to appeal the same decision under the other review process. Enclosed is the Decision Notice disclosing your appeal rights under 36 CFR 217. You also have appeal rights under 36 CFR 251 (Federal Register, Vol. 54, No. 13, January 23, 1989, Pages 3362 - 3368). To initiate an appeal a written notice must be submitted to the Forest Supervisor, RR 2 Box 200, Custer, SD 57730, by December 23, 1989, with a concurrent copy to David E. Blackford, District Ranger, Nemo Ranger District, 460 Main, Deadwood, SD 57732. Any Notice of Appeal must contain the specific information required in 36 CFR 251.90.

If you have any questions please feel free to contact Don Murray at (605)-578-2744.

Sincerely,

DAVID E. BLACKFORD
District Ranger

Enclosures

cc: T. Durkin, South Dakota Division of Natural Resources, Pierre, SD with copy of Decision Notice

DM:rw



DECISION NOTICE FINDING OF NO SIGNIFICANT IMPACT

Hoodoo Gulch Mineral Exploration
Brohm Mining Corp.

Plan of Operations for Mineral Exploration
Nemo Ranger District
Black Hills National Forest
File 90-1

INTRODUCTION

The Hoodoo Gulch Environmental Assessment (EA) describes the environmental analysis for a plan of operations submitted by Brohm Mining Corp. to explore for valuable minerals on the Nemo Ranger District of the Black Hills National Forest. This proposed exploration is to take place in and around Hoodoo Gulch, which is directly adjacent to the current Gilt Edge Mine. The exploration is needed for better refinement of the outer limits of the pit for the mine expansion. The mine expansion is currently being reviewed and an Environmental Impact Statement (EIS) is being prepared. Information from this drilling proposal will be used in the EIS. The Plan of operations calls for the construction of seven segments of road on National Forest System Lands, totaling 1.4 miles, all drilling will be done on the roads and the roads will be reclaimed when the exploration is completed.

The Hoodoo Gulch EA is tiered to the Black Hills National Forest Land and Resource Management Plan and its accompanying Environmental Impact Statement. The Hoodoo Gulch EA is available for review at the Nemo Ranger District Office in Deadwood, South Dakota.

DECISION

It is my decision to approve the plan of operations as amended by the inclusion of the following additional mitigation measures developed in the EA:

- 1. All trees that need to be removed will be $\underline{\text{CUT}}$ down and not pushed over. Slash from any trees that must be cut down will be lopped and scattered to a depth of 18 inches or less.
- 2. If significant amounts of merchantable timber are cut, Brohm will remove the timber from the National Forest. The Forest Service will mark this timber and prior to its removal, Brohm will pay for the timber at appraised rates established by the Forest Service.

⁽¹⁾ Best Minerals Management Practices, A Guide to Resource Management & Reclamation of Mined Lands in the Black Hills of South Dakota. Available at all Black Hills National Forest Offices, Department of Water and Natural Resources and Department of Game Fish and Parks offices.

- 3. Reclamation will follow guidelines approved by the District Ranger using the Best Mineral Management Practices (1). The following will apply on National Forest land:
 - 1) Scarify surface if smooth or crusted
 - 2) Seed with 18 lbs/acre (pure live seed) of the mixture that is in the approved state permit.
- 4. Water bars will be used on temporary access on other disturbed areas where it is necessary to divert water to reduce erosion. The following is the guideline for water bar placement:

road grade slope 5% waterbars 135 feet apart road grade slope 10% waterbars 80 feet apart road grade slope 15% waterbars 60 feet apart

- 5. If visible travelways are created through a timber stand after the drill site is abandoned, this travelway will be covered with available slash and/or logs to prevent further use by off road vehicles.
- 6. In the event fences must be crossed, openings in fences will be temporary and the fence will be returned to the original condition after the drill site is abandoned. Fences must remain effective and openings closed to prevent movement of livestock through the fence.
- 7. Drilling fluids will be properly disposed of off National Forest land, or buried if the fluids are not considered hazardous material. Fluids will be prevented from draining from drill pits during drill pit reclamation.
- 8. There will not be any drilling in the area until after March 15, to allow for more area to open up for wildlife (especially deer).
- 9. If water is encountered during drilling, Brohm will notify the Nemo Ranger District who will provide personnel to witness the capping of the hole to state standards.
- 10. The outside edge of the roadbed (fill slope) shall not have a berm on it that would keep the overland flow of water on the roadbed.

FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the Hoodoo Gulch Environmental Assessment (EA) and the probable environmental consequences, it is my decision that this proposal will not cause a significant effect on the quality of human environment, therefore an Environmental Impact Statement will not be prepared.

I base this conclusion on the facts that:

- 1. Potential adverse effects have been reduced below the level of significance through the use of mitigating measures.
- 2. Cultural resources inventories have been conducted on proposed area, resulting in no sites being eligible for the federal register of historic sites.

- 3. No threatened or endangered species or their habitat or habitat essential for their survival are known to occur in the area.
- 4. There are no floodplains or wetlands identified in the area.
- 5. No environmental effects meet the definition of significance in context or intensity, as defined in 40 CFR 1508.27.
- 6. The the proposed activity is planned for land open to mineral entry, exploration of a similar nature is common practice in this area and has not caused any significant impact to the surface resources or aquifers in the area. Historically mineral exploration and development has been important throughout the Black Hills.

IMPLEMENTATION AND ADMINISTRATIVE REVIEW/APPEAL

Implementation may take place immediately following the March 15, 1990 restriction for mitigation of wildlife concerns. Approval by the State of South Dakota Department of Water and Natural Resources will also be required before implementation.

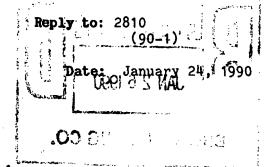
This decision is subject to administrative review pursuant to 36 CFR 217 effective February 22, 1989, as published in the Federal Register, Vol. 54, No. 13, January 23, 1989. Any appeal of this decision must be fully consistent with 36 CFR 217.9, Content of Notice of Appeal, including the reasons for appeal and must be filled with the Forest Supervisor, R.R. 1 Box 200, Custer, SD 57730-9504, within 45 days of the date of the decision. For additional information concerning this decision or the Forest Service appeal process contact David E. Blackford, District Ranger, Nemo Ranger District, Deadwood, SD 57732.

District Ranger
Nemo District

Jebruary 16, 1990

Black Hills National Forest

Nemo Ranger Dist. 460 Main Street Deadwood, SD 57732



Brohm Mining Corp. Mr. Lance Hubbard P.O. Box 485 Deadwood, SD 57732

Dear Lance:

I have begun the evaluation of your proposed plan of operations for exploration drilling in the Hoodoo Gulch area. I will need some additional time to complete the environmental analysis. As you know our regulations permit an additional 60 days for the approval of a plan of operations. I will not need nearly that much time to complete this analysis and make a decision; but I will need additional time to satisfy the appeal regulations. I will notify you shortly what the time frames are.

Sincerely,

District Ranger

DM: dm

as suggesting that passage of the bill would aid the Union in achieving a new contract with Pittston since it would resolve one of the disputed issues.

Aside from the transfer of surplus assets from the 1950 Pension Fund to the two Benefit Funds, the second objective of the bill is to increase the number of contributors to the Benefit Funds into the future. Under the bill, any mine operator who had an obligation to contribute to the Funds in January 1988 will have an obligation to contribute on a continuing basis at the rates negotiated by the UMWA and the BCOA. This would immediately apply to members of the BCOA and signatories to "me-too" contracts identical to the NBCWA. However, there is an exemption employers with non-conforming contracts, which do not require contibutions to one or both funds, for the term of their current collective bargaining agreements. Expiration or modification of such non-conforming agreements will trigger the continuing obligation to contribute to both Benefit Funds at the rates negotiated by the Mine Workers and BCOA.

The bill was originally attached as an amendment to the Federal Budget Reconciliation Bill, a critical piece of legislation to fund the Federal Government for the resent fiscal year which began October 1. The Reconciliation Bill has been stripped of all amendments at the present time, so the future of the Coal Industry Health Benefit Stabilization Act of 1989 remains uncertain. Senators Byrd and Rockefeller, its primary sponsors, have indicated that they will continue to press for its passage in this session of the Congress. An identical version of the bill was introduced in the House

of Representatives by Rep. Rick Boucher (D-Va.).

Initial reaction to the bill has been predictable. Pittston has promised a challenge to constitutionality of the legislation. Both the UMWA and BCOA have expressed support for the bill, as a solution to the problem of funding the benefit obligations set forth in the NBCWA. The bill raises a number of legal issues for any industry employer that is not currently signatory to the NBCWA but may have been signatory to a contract containing an obligation to contribute to the funds prior to February 1988.

Rosemary M. Collyer Thomas P. Gies

FOREST SERVICE ADOPTS STRONG MINERALS POLICY

XC Rex Outzon

In a recent action which appears to have escaped the attention of most of the mining industry trade press, U.S. Forest Service Chief Dale Robertson approved a new "Minerals Program Policy" which strongly supports mineral development activities on Forest Service multiple-use lands. In a September 15, 1989 transmittal memorandum from Washington, D.C. Headquarters to the Regional Foresters, the Chief stated that he wanted to "personally stress the importance of mineral resources on the National Forests " Notably, the Chief stated further that there "are indications that this policy is not understood by some of our Line and Staff officers." This not so subtle remark was undoubtedly provoked by several recent situations in which field officials have rendered legally erroneous decisions thwarting mineral exploration and development

projects, only to be reversed by higher officials -- with the influence of the Headquarter's office.

Chief's memorandum The emphasized the importance of "meeting regulatory timeframes for approval of mineral operations," and stated further that "[u]nreasonable delays unacceptable." He explained that Forest Service managers "must develop a good understanding of the minerals industry, its practices, and the mineral laws and regulations." The Minerals Program Policy statement declares, inter alia, that the "mission of the Forest Service in relation to minerals management is to encourage, facilitate, and administer the orderly exploration, development, and production of mineral and energy resources on National Forest System lands to help meet the present and future needs of the Nation."

The Policy addresses in more detail matters such as consideration of minerals in the planning process, withdrawals, access rights, and improved interaction with the mining industry. Finally, the document states that it is Forest Service policy to "[s]howcase mineral development on the National Forest to demonstrate harmony with other resources and land uses."

In all, the mining industry could hardly have expected a better policy statement. While broad governmental policy statements often turn out to be nothing more than empty promises, this one seems intended to be more than that. The policy statement reflects that a strong pro-minerals school of thought does indeed exist at Forest Service Headquarters. This policy statement may prove useful in

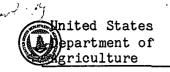
negotiations and appeals (formal and informal) when mining companies find themselves faced with recalcitrant District or Forest officials who are improperly impeding mineral activities. (In fact, we have already found it helpful in a dispute over whether an environmental impact statement must be prepared for a plan of operators for a minor exploration permit).

R. Timothy McCrum

EPA FINALIZES ONE RCRA
RULE ON EXEMPT MINERAL
PROCESSING WASTES, AND
PROPOSES YET ANOTHER RULE

On September 1, 1989, EPA published a final rule establishing the criteria that will be employed to make individual "Bevill" mineral processing waste exemption determinations under the Resource Conservation and Recovery. Act ("RCRA"). The final rule responds to the D.C. Circuit's directive in Environmental Defense Fund v. EPA to narrow this exemption as it processing applies to mineral wastes. The D.C. Circuit held that only wastes which are "high volume" and "low hazard" may remain (Further exempt. background on this seemingly intractable issue is set forth in the rule and in 5 C&M Mining Law Monitor, No. 2 (Apr. 1989) and 4 C&M Mining Law Monitor, No. 4 (Oct. 1988).) This rulemaking generally affects wastes from "hard and certain industrial mineral processing operations, and is largely inapplicable to coal mining wastes.

EPA's rule, which encompasses 50 pages of Federal Register fine print, is too complex to be comprehensively summarized



Forest Service Black Hills National Forest Nemo Ranger Dist. 460 Main Street Deadwood, SD 57732

Reply to: 2810

(89-5)

Date: January 10, 1990

Rex Outzen
Brohm Mining Corp.
PO Box 485
Deadwood, SD 57732

Dear Rex:

Now that we have some new players involved in key positions with the EIS process, I feel that we should outline some responsibilities and duties so that all parties will have an understanding of the new roles.

With Dave Stensby filling in for Brohm Mining Corp. on an interm basis, I would like to get a run down from you, on what responsibilities Dave will have and how much authority he has to speak for Brohm. I do not have any problem with this arrangement but I need written clarification on his duties while at Brohm. With Dave's earlier involvement as a consultant and now as a Brohm employee there are some things that seem a little awkward right now. Most of these are minor points but I would like to make sure that you and I are on the same page. For example, ENSR will soon be sending in their monthly progress report, which we will review and send to Brohm for payment. It seems unusal to send an ENSR financial report to a Bechtel employee. This may seem minor; but minor things seem to have a way of growing in importance.

I would also like to take this opportunity to remind you that under the agreement that we developed at the start of the EIS (June meeting in Sturgis), all data (approved by Brohm for release) regarding the EIS, will be sent to my office and we will act as the clearinghouse for this information. This process was agreed to by Tom Durkin, Doug Stewart, Dave Cornman, Julie Fisher and myself. This process has worked well. The draft copy of the "position papers" or "alternatives report" has not been sent to my office; but was sent to ENSR. This report seems to be undergoing a great deal of revision since the December meeting ENSR personnel are spending time (and dollars) reviewing this very draft report and will again review this report when we receive it in final form. I don't feel that this is time well spent by ENSR seeing as how there will be a good deal of changes to the final document. If the report would have come through this office we could have advised ENSR better on what to do with this document.

As you will remember, we told the public that the Forest Service was running the EIS, and I intend to keep my word to the public. Please ensure that the information and data flow for the EIS comes through my office for distribution to the State, County, Forest Service and ENSR.





Thank you for your assistance on this matter.

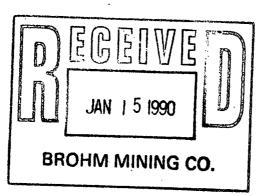
Sincerely,

DAVID E. BLACKFORD District Ranger

cc: Tom Durkin, SDDWNR
Phil Hackney, ENSR
Dave Cornman, Bechtel

DM:dm

JAN 15 1930 BROHM MINING CO. เพียงกับ คุรใช้ คือ ของเราะย์เดียว เคย ู เพียงกับ





23 Pest 1882

Difficial parent for the control of the control of

Gilt Edge Expansion Project Meeting September 14, 1989 Pierre, South Dakota

Doug Stewart provided a project overview and a summary of the public scoping meetings with the following highlights:

- Existing powerline will be upgraded;
- Water source(s) will need to be identified as the well in Lost Gulch producing only 100 gpm;
- State Mining and Milling Permit probably will be submitted in the summer 1990;
- Permitting and construction will cost about \$128 million;
- Proposal to process 6 million tons per year; 90 million tons for mine life; and
- Reclamation to include creation of a lake at the pit and interim reclamation of waste rock with emphasis on keeping waste rock dry to minimize acid mine drainage.

Jim McLain of Bechtel (a project manager) discussed engineering and design:

- Bechtel has been involved in the project since February 1989;
- Three phases of their work include: 1) detailed engineering and procurement (i.e., equipment and materials purchase, QA Plan); 2) site construction monitoring and QA; and 3) preoperation and testing phase;
- Plant design features including:
 - Harmonius plant siting for low visual impact;
 - Three containment measures with good sound engineering and materials, concrete pad and berm around facilities with sump, and retention basin (lined pond);

- Tailings and water reclaim lines will be located along a lined ditch between tailings and plant;
- Dust suppression at primary crusher (bag house), ore pile (tunnels), metal covered conveyors, water spray at transfer points, water trucks during construction and operation with MgCl and water;
- Maximum reuse of process water (500-900 gpm
 make-up); and
- Meet or exceed all applicable health and safety standards.

Don East of Knight Piesold discussed the tailings and waste dumps:

- Four stages of tailings are tailings slurry, after settling, after drainage, and after drying;
- A clay soil liner will be constructed at the tailings floor using existing clay soils with drainage pipe above with a drain blanket of gravel (i.e., underdrainage layer or liner). Tailings will then be applied in 4-6 inch layers (+2 inches) to promote quick drying for the 24-hr. application cycle;
- No problem with winter freezing at surface and goal is to limit the size of the pond area;
- Clay additive (bentonite) will not be required for the soil liner;
- Process water collection pond below the tailings dam will be double lined with leak detection system to RCRA standards; pond will be 3-4 acres with a 10 million gallon capacity for 10-day storage capacity;
- Embankment will be raised in increments corresponding with increase in tailings area and will consist of mine waste material;

- Madison formation contact area at the dam will be about 2.3 acres at year 8 of the mine; synthetic liner will be placed on the steep slopes at the dam and this will include this contact area; tailings pond will not contact the Madison;
- Near mine closure the tailings deposition will be shifted to the pond area, resulting in the pond being moved to the embankment where it will collect into the containment pond;
- Design life of the tailings dam unlimited;
- Not likely that the pit water can undermine tailings below liner as water would have to pass under Butcher and Ruby Gulches;
- Tailings dam area will have 10 acres of synthetic liner; 300 acres of soil liner; and
- Amount of available clay soil and proposed stockpile areas will need to be determined.

John Gormley of Knight Piesold discussed post-mining drainage:

- Post-mining drainage predicted at <100 gpm into the containment pond;
- Goal is to contain drainage and passively maintain or treat prior to discharge at acceptable levels;
- Propose to discharge into soil to filter out cyanide and then flow into constructed wetlands for passive treatment; and
- Discharge below wetlands would be monitored during and after mining prior to release as surface water into Lost Gulch and Bear Butte.

Roman Pyrih of Geochemical Engineers discussed the water quality of the drainage solution into the holding pond:

- Chemical composition will change with time as the solution will initially have higher levels of cyanide and copper and these levels will drop later, based on recent testing with tailings samples; potentially acidic leachate with CaCO3 and SO4;
- Uptake into plants does not appear to be a problem; however transfer to animals is unknown and will require more information gathering by Geochemical Eng.;
- Active treatment of solution prior to release will be implemented in the event that passive treatment (wetlands) proves to be ineffective;
- Brohm does not intend to treat tailings prior to release to the tailings pond due to high costs, lack of need since it will be contained, potential for creating chemical problem (i.e., treatment with chemical laden water may increase chemical levels in tailings), and washing will require more water;
- Tailings area will be fenced off with chain link; if cyanide levels are 200 ppm, waterfowl will be a concern and would require measures to avoid exposure (e.g., netting, hazing, neutralization with hydrogen peroxide to <50 ppm);
- Mercury levels of ore is in the ppb; metals in waste rock and tailings primarily Cu with some lead, cadmium, mercury; no arsenic problems; tailings sulfide content 3-4% with pH of 10-11; and
- Acid base potential analyses will be done (soon!) by Geochemical Engineering.

Larry Brown of Brown & Associates discussed the Reclamation Plan:

- Proposed tailings pond reclamation is 6 inches of soil at surface above 2.5 feet of select mine waste rock (low sulfide with maximum 2.5 foot diameter, 50% less than 6 inch diameter); clay/silt natural soil liner cap of 1 foot below mine waste rock and 2.5 feet of waste rock (not select, can have high sulfides) below the 1 foot soil liner; total of 6.5 feet of material above tailings;
- Proposed revegetation to post-mining land use of wildlife habitat with meadow and some birch and aspen;
- BHNF expressed concern over invasion of area with ponderosa pine which typically produce deep roots, some down to 30 feet (L. Brown said that is not a problem as pine will not root deep if water is not present at depths);
- Tailings area will be gently sloped away from the middle to divert water to the northern edge of the pond into the drainage channel;
- Proposed waste rock cap (top and sides) to include 6 inch soil with 2.5 feet of waste rock below and 1 foot of clay soil at the bottom;
- Soil (fine materials) will be salvaged for tailings liner and cap, tailings dam, waste rock caps, topsoil, and soil in place for attenuation;
- Proposed pit reclamation involves allowing the pit to refill with water and possibly filling the pit more quickly with water from an outside source resulting in less acid generation; pit will refill in 5-6 years as opposed to 30+ years if left to naturally refill;
- Revegetation will be the same as for the tailings area with meadow and a few trees; and
- Approximately 300 foot wall above the final water level in pit with 60 foot benches that will be modified and revegetated to resemble natural conditions.

Adrian Brown of Brown & Associates discussed the pit, waste rock area, and the tailings dam:

- About 100-200 gpm of flow into the pit; 100,000 acre feet to fill the pit (2x's the volume of Pactola Reservoir);
- Area of influence about 1 mile out from the pit wall;
- Little ground water impact expected to Bear Butte Creek via Strawberry Creek;
- Pit (once full) will continue to overflow and have inflow; at 5,200 feet water spills into Strawberry Creek;
- Ideally the pit will fill with good quality water from Homestake or the Madison;
- If waste rock water were to escape containment, it probably would not get into the water table due to good attenuation in the soil; and
- In the event that the tailings liner fails, solutions will likely attenuate since they would have to go through several hundred feet of impermeable material; worst case would go into Madison which is dry for about 1 mile from dam; monitoring at the Madison will be important.

Doug Stewart explained that 2,000 gpm of water would be required for startup (3 months) and 500-900 gpm after that for typical operation; if water is not available from Homestake, it may be available from Centennial Prairie, Whitewood, or Sturgis.

Gilt Edge Expansion Project ID Team Meeting September 15, 1989 Pierre, South Dakota

Discussions related to the new proposal for pumping water into the pit:

- Pumping water into the pit at closure would involve 3,000 gpm for about 8-9 years for the 90 ton pit with about 300 gpm natural inflow into the pit;
- Madison has the capacity to supply water for the pit and the higher pH would minimize oxidation;
- Ron Duvall (DWNR water rights) indicated that current appropriation levels are low in the Madison at Centennial Prairie, Whitewood, and Sturgis;
- Adrian Brown said that precipitation roughly equals evaporation in the pit;
- Volumes of Homestake water going into Whitewood Creek unknown, probably about 4.5 million gallons per day (3,100 gpm) which is about 25% of the flow in Whitewood Creek;
- Hazen Research in Denver is generating acid base potential data based on samples collected at varying depths and spacing with samples concentrated at pit wall limits;
- State wants to review reports addressing acid generating potential and accelerated pit filling scenarios; Brohm indicated that the reports would be available in 2-4 weeks;
- State will run lab samples for sulfides/acid base potential to verify Brohm's accuracy; and
- First three months of mine operation and the closure period are the most crucial times for water demand.

Discussions related to the construction of wetlands for passive treatment of tailings discharge water:

- There would not be any standing water in the wetland; only soil with effluent piped into the soil;
- State and BHNF need detailed report demonstrating that the wetlands will work with literature search and position paper from Brohm;
- Adrian Brown's report indicates that about 8 gpm of drainage would flow into the wetlands from tailings pond;
- The wetland construction would be tested during the mine operation to ensure that it works; if it does not work then other alternatives including active treatment would be implemented;
- BHNF wants the worst-case-scenario addressed related to the washing of the wetland; Brohm said that this would be covered in the risk analysis that they would develop probably within two months; and
- The state will require a NPDES Permit for the wetland to be submitted with the Mining and Milling Permit.

Tailings treatment alternatives were discussed:

- Chemical treatment requiring cyanide destruction would be cost prohibitive according to Brohm (i.e., \$1-1.50/ton); mechanical treatment would involve washing or filtering without chemicals;
- Brohm does not feel that treatment is necessary since chemical treatment works for oxides not sulfides and acid would be generated with sulfides, more water would be required, and Brohm wants to reuse/recycle the cyanide not destroy it; and
- Blackford indicated that the treatment alternatives which need to be addressed in the EIS include: 1) proposed-no treatment, 2) treat tailings, 3) treat effluent, 4) wash tailings, and 5) install a synthetic liner under the clay liner (19% clay fractions) for the entire tailings dam area.

Discussions more specific to the ID team and matters related to the EIS preparation:

- Study Plan is finalized and will be approved soon by the BHNF Supervisor;
- CEE Project status-contract with BBC of Denver is currently being negotiated and should be finalized by October 1.
- Scope of work to be written and draft report to be submitted for state review by September 1, 1990; final report by December 1990;
- BHNF wants revised Plan of Operations from Brohm to display at the BHNF Open House scheduled for October 10 & 11; Plan of Operations to include all revisions, collection of current drawings, and position papers on the pit work and the wetlands;
- Brohm will identify preferred alternative and ENSR/BHNF will develop other alternatives;
- Tailings treatments and discharge treatments (wetlands) to be included under milling and process alternatives;
- Open House will not be formal and will address the Plan of Operation; scheduled for Rapid City on the 10th of October (3:00 to 7:30 p.m.) at the Alpine Room Civic Center and Deadwood on the 11th or 12th;
- BHNF Forest Plan is being revised; this was the first Forest Plan in the U.S. and the first Forest Plan revision; minerals will the focus of revisions;
- Phil Hackney (ENSR) indicated that assuming that Brohm can provide all information needed for analysis (by the first week of October) regarding water source and corridors, wetland construction for passive treatment of discharge, updated Plan of Operations with current drawings, and soils information from the Reclamation Plan, the current schedule can be followed. If additional data is needed related to the water corridors, wetlands, or pit then the schedule will change and costs will likely increase;

- Brohm has boxes of documents from Homestake for work they had done in the Centennial Valley and corridor area along Whitewood Creek;
- Bechtel will develop economic analyses of the various alternatives;
- BHNF will run duplicates (split samples) of Brohm's cores for acid base potential;
- According to Tim Olson, Whitewood Creek was proposed by the state as natural and scenic? This never went through and Bob Townsend, Dwayne Murphy, or Lee Baron can provide clarification on this matter; and
- Next ID team meeting is scheduled for mid-November; this meeting will concentrate on Environmental Consequences.



XC: Deanne Miller

TO:

Distribution

FROM:

Joe Danni

DATE:

October 9, 1989

SUBJECT:

Forest Service Mineral Showcase Prog

Enclosed is the "The Guide to Showcasing Mineral Activities published by the U.S. Forest Service in cooperation with the AMC and others.

Most of you do not have activities on Forest Service Mand, nevertheless, portions of the proposed partnership discussion may have application on your operations. Furthermore, the State Mining Associations may have an interest in the proposal.

JLD:mef

DISTRIBUTION:

B. Boppe

Creede Grants

F. Craft G. Loving

Lead

R. Parker

McLaughlin

D. Rolfe

Wood Gulch

cc:

G. Boyer

Doe Run

J. Haptonstall -

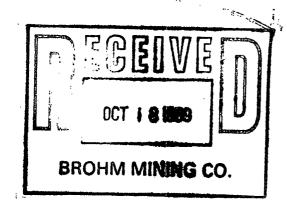
Golden

A. Winters

Golden (w/o attachments)

Debbre Please nuche expess for Pete Dick

OCT 12 1389



For More Information

Persons interested in setting up and implementing a showcasing effort are encouraged to consider the more detailed suggestions and ideas found in "Guide to Showcasing Mineral Activities," FS-440, which can be obtained by writing to the

Chief, USDA Forest Service

P.O. Box 96090 Washington, DC 20090-6090

or to the Regional Forester, USDA Forest Service, at any of the following locations:

Northern Region

Federal Bldg. P.O. Box 7669 Missoula, MT 59807

Pacific Southwest Region

630 Sansome St. San Francisco, CA 94111

Rocky Mountain Region

11177 West 8th Ave. P.O. Box 25127 Lakewood, CO 80225-2098

Pacific Northwest Region

319 SW Pine St. P.O. Box 3623 Portland, OR 97208

Southwestern Region

Federal Bldg. 517 Gold Ave., SW Albuquerque, NM 87102

Southern Region

1720 Peachtree Rd., NW Atlanta, GA 30367

Intermountain Region Federal Bldg. 324 25th St. Ogden, UT 84401

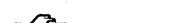
Eastern Region

310 West Wisconsin Ave. Milwaukee, WI 53203

Alaska Region

Federal Office Bldg. P.O. Box 21628 Juneau, AK 99802-1628

In cooperation with:



American Mining Congress



American Petroleum Institute



nsa

National Stone Association

August 1989

Forest Service

FS-441

Showcasing Mineral Activities

Partnerships in Action





Introduction

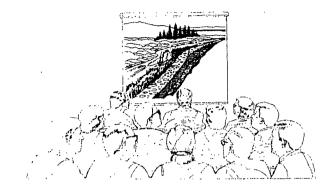
A mineral showcase area is a place to demonstrate that minerals can be extracted from the earth in a way that integrates other resource values and uses of the land. On National Forests and Grasslands, this means that the mineral operation is consistent with the management objectives of the Forest Plan. It also means that as mineral extraction is completed, the land will be reclaimed for other beneficial uses in harmony with the surrounding area.

Society today is highly dependent upon minerals and fossil fuels. Yet, many people feel that the impacts from mining and mineral extraction on public lands are unacceptable. Mineral showcase areas are places to discuss the idea of "caring for the land and serving people." They provide opportunities for people to see and understand mineral operations in an era of environmental awareness.

The purpose of this brochure is to introduce to land managers and industry officials the concept of showcasing mineral activities. In essence, the concept involves establishing one or more showcase areas and interpreting for the public what is going on there so that the idea of responsible natural resource management is conveyed.

To enhance implementation, it would be helpful to establish corporate and agency showcasing objectives and to obtain the mineral showcasing guide.





Evaluating Success and Making Improvements

- Are the showcase objectives being met? Are the target audience, message focus, and media decisions still valid? Questions like these should be answered in periodic evaluations of the overall mineral showcase effort. Changes should be made as needed to keep the effort viable.
- Also, it is important to determine audience reaction to individual presentations or other specific aspects of the program. How do people feel about the mineral operation? What benefits have they obtained from the visit or presentations?

Remember... a good word passed along from satisfied and enlightened members of the audience to friends is the most effective way of letting others know that minerals can be developed in harmony with other natural resources and values.



The Medium—How Shall We Convey the Information?

Once the mineral showcase audience and message have been determined, attention should turn to the job of communicating the message through proper design and presentation.

Showcasing—Attention to Details

There are key considerations in mineral activity showcasing, some seemingly insignificant, which can contribute greatly to the success of the effort. "Guide to Showcasing Mineral Activities" has checklists for both onsite and offsite presentations for those getting ready to showcase a mineral operation.



Mineral Showcasing Objectives

Mineral Activities in a Multiple-Use Setting

The primary objective of showcasing mineral activities is to demonstrate mineral extraction in harmony with other natural resources and values.

Partnerships in Action

Another objective of mineral showcasing is to demonstrate the partnerships involved—land management agency, mineral industry, local government and others—in natural resource development.

Selecting the Area

Showcase areas should encompass ongoing mineral operations having a variety of visible surface impacts. They should be areas of interest to the public, where activities are being guided by a land management plan or a set of integrated land use objectives.

Criteria for selecting a showcase area include:

- It is easily accessible.
- · It is capable of accommodating visitors safely.
- It demonstrates good management practices and integrated resource management.
- It is supported by industry and cooperating agencies.

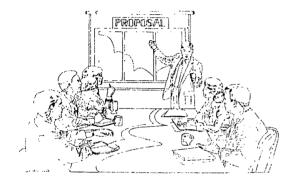






Gaining Support for the Idea

The best mineral demonstration areas are those where there is a high level of cooperation between industry and the various permitting and regulatory agencies. Therefore, in establishing and interpreting mineral showcase areas, consideration for involvement should be given to a variety of cooperators.



Planning and Organizing

Once the showcase area has been selected and the concept is supported by the major cooperators, the roles of the various parties need to be defined and documented.

- Consider the need for a Memorandum of Understanding or other formal agreement.
- A mineral showcase action plan showing who is going to do what and when would be helpful.

Telling the Story

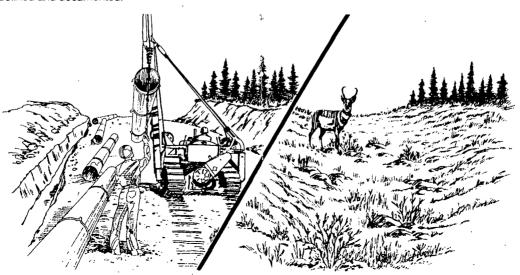
After the administrative arrangements are in place, the cooperators can focus on telling the story. Three key questions need to be answered. Collectively they provide a sound basis for achieving the showcase objectives.

The Message—What Do We Want To Say?

The overall showcase objectives, previously identified; deal with mineral activities in a multiple-use setting and partnerships in action. As cooperators pursue mineral showcasing, they need to develop the specific message to be conveyed for the particular mineral showcase area.

The Audience— Whom Do We Want To Get the Message?

Mineral showcase messages directed to specific groups of people stand a better chance of acceptance by their intended audience.





Forest Service

FS-440



Guide to Showcasing Mineral Activities

Partnerships in Action





Contents	<u>Page</u>
Introduction	3
Mineral Showcase Objectives	4
Mineral Activities in a Multiple-Use Setting	4
Partnerships in Action	4
Selecting the Area	5
Gaining Support for the Idea	5
Planning and Organizing	6
Telling the Story	7
The Message—What Do We Want To Say?	7
Focusing the Message	7
Themes To Consider	7
The Audience—Whom Do We Want To Get the Message?	8
Variables in Selecting an Audience	8
Audiences To Consider	8
The Medium—How Shall We Convey the Information?	8
Message Design	8
Message Presentation	9
Showcasing—Attention to Details	10
Checklist Items for Onsite and Offsite Presentations	11
Checklist of Additional Items for Onsite Presentations	11
The Tour Guide—Key to Success	12
Evaluating Success and Making Improvements	
Appendix—Developing a Formal Mineral Showcase Analysis	13



Introduction

A mineral showcase area is a place to demonstrate that minerals can be extracted from the earth in a way that is sensitive to other resource values and uses of the land. On National Forests and Grasslands, this means that the mineral operation is consistent with the management objectives of the Forest Plan. It also means that as mineral extraction is completed, the land will be reclaimed for other beneficial uses in harmony with the surrounding area.

Society today is highly dependent upon minerals and fossil fuels. Yet, many people feel that the impacts from mining and mineral extraction on public lands are unacceptable. Mineral showcase areas are places to demonstrate the concept of "caring for the land and serving people." They provide opportunities for people to see and understand mineral operations in an era of environmental awareness.

The purpose of this guide is to encourage and assist land managers and industry officials to establish mineral showcase areas and interpret what is going on there so that the idea of responsible natural resource management is conveyed to the public.

A brochure, "Showcasing Mineral Activities," that summarizes the showcasing concept is also available to send to potential cooperators. See the last page of this publication for information on how to order copies.

Leadership for showcasing efforts, including initial contacts of the various parties to be involved in them, can come from Forest Service personnel or industry officials.

In reviewing this guide, the reader will find that the options for successful showcasing are as boundless as the imaginations and creativity of the people who implement it.





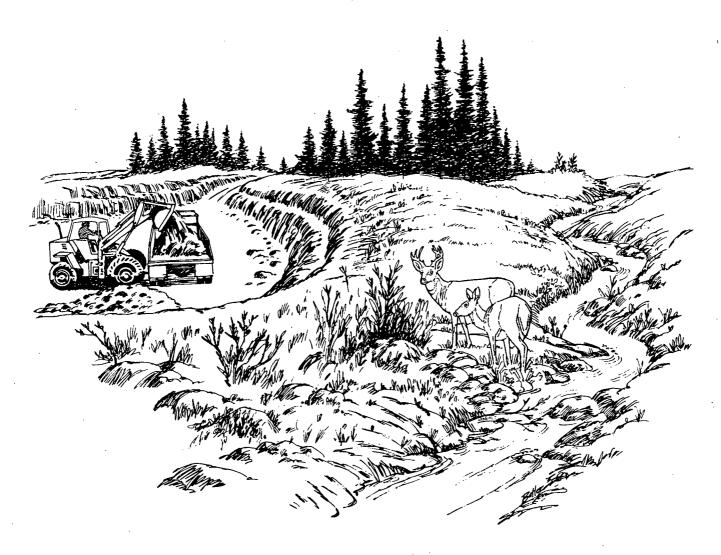
Mineral Showcase Objectives

Mineral Activities in a Multiple-Use Setting

The primary objective of showcasing mineral activities is to demonstrate mineral extraction in harmony with other natural resources and values. There are many aspects to a mineral operation. Discussion topics can range from prospecting or exploration, to planning the project and securing finances, mineral extraction and mitigation measures, and land use and reclamation after mining. However, the most relevant overall objective of the showcase is to demonstrate multiple use and how mineral activities are coordinated with other uses and values. People are increasingly concerned about this as an ever greater number of resource uses and values compete within a static land base. All resource uses are subject to some degree of adjustment in order to fit in an overall multiple-use setting.

Partnerships in Action

Another objective of mineral showcasing is to demonstrate the partnerships involved—land management agency, mineral industry, local government, and others—in natural resource development. With our complex arrangement between public and private sectors, no one entity can bring about the extraction of minerals. For example, while public agencies have permitting and regulatory responsibilities, it takes industry to bring about development through investment capital. Concern for the environmental aspects of an operation is shared. Public expectations for "doing the job right" translate into environmental awareness on the part of agencies, industry, and local governments. Showcasing mineral activities provides an opportunity to demonstrate the various partnerships that are needed for a successful operation.





Selecting the Area

A showcase area should encompass an ongoing mineral operation having a variety of visible surface impacts. It should be an area of interest to the public, where activities are being guided by a land management plan or a set of integrated land use objectives. Ideally, the area would have competing land uses or resource values. An example would be mineral extraction occurring within wildlife winter range that has high scenic value.

Criteria for selecting a showcase area include:

- · It is easily accessible.
- · It is capable of accommodating visitors safely.
- It demonstrates good management practices and integrated resource management.
- It has the support of industry and cooperating agencies.

The showcase concept can be applied to large and small operations and nearly all forms of mineral activities.

Gaining Support for the Idea

The best mineral demonstration areas are those where there is a high level of cooperation between industry and the various permitting and regulatory agencies. Therefore, in establishing and interpreting mineral showcase areas, consider involving:

- Industry—Individual companies and industry associations.
- · Cooperating agencies—State and Federal.
- · Local governments.

Some ideas to get cooperators involved are:

- Send a letter with a copy of the brochure that summarizes this guide to potential cooperators and ask for an expression of interest in showcasing a specific operation/area.
- Conduct a "show me" trip to the site to explore the showcase concept with potential cooperators.





Planning and Organizing

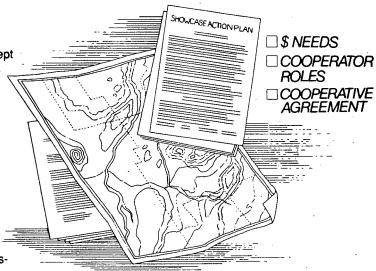
Once the showcase area has been selected and the concept is supported by major cooperators, the roles of the various parties need to be defined and documented. A Memorandum of Understanding (MOU) can be used if no money is involved. Where an exchange of money is involved, a Cooperative Agreement is needed.

Topics that should be addressed include:

- · Showcase objectives.
- · Roles of each party.
- Arrangements for coordinating showcase functions.
- Funding.

The MOU or Cooperative Agreement becomes the administrative framework that sets forth the objective and how the parties will work together to accomplish it. Also, a mineral showcase action plan showing who is going to do what and when would be helpful.

At this stage, some thought needs to be given to the level of interest and to work force and budget needs. How large an effort is desired? Who will do it? How will it be funded? This is the time to define the essence of the partnerships.







Telling the Story

After the administrative arrangements are in place, the cooperators can focus on telling the story. Three closely related questions need to be answered. They are: What do we want to say? Whom do we want to get the message? How shall we convey the information? They should be considered both individually and collectively, in that the answer to any one will likely affect the answer to the others. Overall, they provide a sound basis for achieving showcase objectives.

The Message—What Do We Want To Say?

Deciding what to say is as important as whom to say it to. These two decisions are often made simultaneously. Certainly they are inseparable.

The overall showcase objectives, which were discussed in the section on mineral showcase objectives, deal with mineral activities in a multiple-use setting and partnerships in action. However, the cooperators must decide what is the specific message to be conveyed for a particular mineral showcase area.

People are interested in the process of resolving multiple-use issues, the organization or partnerships involved, and the compromises reached. How was the mineral development modified or reclaimed so as to be in harmony with wildlife interests, scenery, and other values? The "before and after" illustrations in this section show some examples. How are the modifications demonstrated in the mineral showcase?

Which organizations were involved in the analysis and decision making? What was the working arrangement, and how were the tradeoffs between minerals, wildlife, and scenery reached? How are other values protected during operations? How was the public kept informed and involved?

Focusing the Message

To help focus the message, first define what the mineral showcase area has to offer to the public. Then ask the following:

- · What audience so we want to reach?
- What do we want that audience to know about this area or activity?
- What do we want that audience to do with that knowledge; for instance, do we want to encourage people to change a behavior or an attitude?

Themes To Consider

- · Minerals are where you find them.
- · Economically, mineral values normally exceed other values.
- With careful planning and reasonable mitigation, you can have minerals as well as most other values.
- Mineral activity is an interim (not final) use of the land.
- Reclamation can prepare the land to serve desired future uses
- In some instances, mineral activities and reclamation can enhance other values.
- It takes the cooperation of the public sector and the private sector to produce minerals.
- Minerals contribute to national security, local economies, and the U.S. Treasury.





The Audience—Whom Do We Want To Get the Message?

Mineral showcase messages directed to specific groups of people stand a better chance of acceptance by their intended audiences. There is no single right way to select an audience. A number of variables can be used.

Variables in Selecting an Audience

Most audience selection variables fall into the following categories:

- Geographic—Selecting audiences by location or place of residence, such as urban or rural.
- Demographic—Selecting audiences by characteristics such as age, occupation, and education.
- Psychographic—Selecting audiences by attitudes, motivation, and varying lifestyles.

In most situations, audiences will be selected by combining components in the three categories. Each group has specific needs and interests, and understanding them is essential in focusing the message. For example, what a group already knows about natural resources and mining helps in determining what information should be presented to it.

Audiences To Consider

- Teachers/educators associations.
- · Student groups.
- · Legislators and staffs.
- · Environmental organizations.
- · Local and State government representatives.
- · The media.
- Agricultural, business, service, and other community organizations.

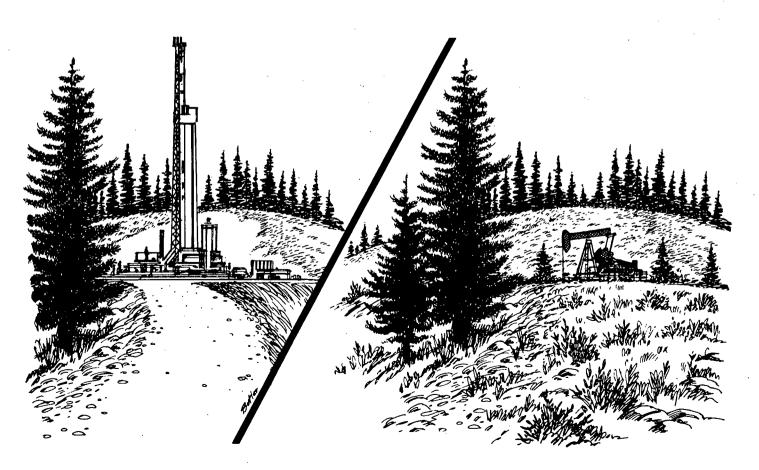
The Medium—How Shall We Convey the Information?

Once the mineral showcase audience(s) and message have been determined, attention should turn to the job of communicating the message through design and presentation.

Message Design

Message design involves factors such as form and color; line, shape, and texture; and text and illustrations. Some of the basic design principles that should be considered are:

- Material layout should lead the eye easily from beginning to end.
- Color not only increases the attention-getting qualities of a message, but also its holding power.





- Lines are used to create impressions. For example, a horizontal line can evoke feelings of tranquility, a vertical line suggests impending action, and a diagonal line has the quality of movement.
- Shapes and texture can connote gender. Round shapes
 are associated with femininity, angular shapes with masculinity. Rough terrain with trees appears more masculine,
 while rolling hills of grass appear more feminine.
- In writing the text, the message should be specific, interesting, believable, simple, relevant, and concise. If titles or headlines are used, remember that they should pull the reader into the text. Illustrations are not only attention getters but should be relevant to the story.
- The design criteria for print layouts generally also apply to video productions. For example, audio bears much the same relationship to video as captions bear to print illustrations.

Message Presentation

Message presentation relates to such factors as the medium (audio, visual, or a combination of both) and the mood that is set (formal, informal, analytical, factual, objective, subjective).

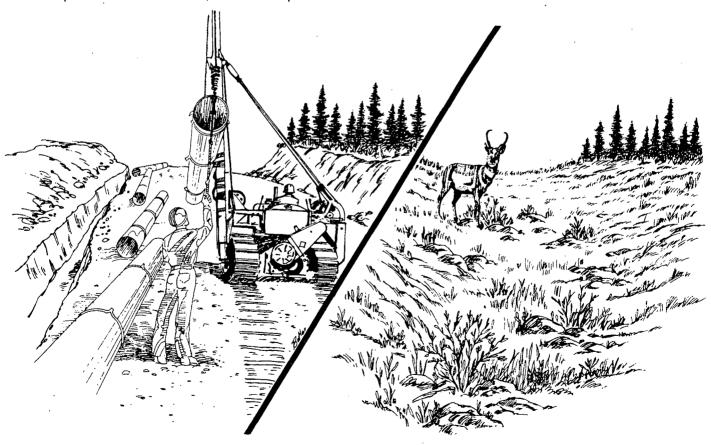
Subject matter, props, lighting, and environment—all can determine the mood in which the presentation is made. The forms of presentation are the media, which include printed

matter (such as brochures, fliers, signs, and posters), voice (live or recorded), and projected film slides, motion pictures, and video. Slides are a particularly good way to supplement a print or audio exhibit visually and inexpensively. In deciding what media to employ, consider:

- The kind or combination of media that will best reach the intended showcase audience.
- The room or area the audience will have in which to absorb the message (including the field locations within or adjacent to the mineral operation).
- The time the audience will have in which to absorb the message.
- . The degree of recall that is important.

In general, people recall brief, simple messages directed to both eye and ear more readily than messages sent to either eye or ear alone.

And finally, the more or less standard elements of planning and organizing should be considered. Planning generally deals with the question of, "What do we have to do to attain the objectives, and when?" Consideration should be given to bringing people into the mineral showcase area, as well as taking the showcase message to the target audience away from the area.





Organizing entails dividing the showcase effort into manageable activities and selecting people for the jobs to be done. Mineral showcase presentations where there is active participation by the major cooperators previously mentioned often receive better marks. For one thing, cooperators are on hand to respond to questions from the audience. Secondly, the audience is more apt to get a feel for the type of cooperation that went into the mineral project being discussed.

It also helps to treat positive recognition for various aspects of the operation as though it were unlimited. Give credit where credit is due. Everyone likes to be part of a success—and it will rub off on the audience as well!

Onsite Media Considerations. When the media are to be used at the mine site, one should consider using:

- · Facilitated tours.
- · Self-guided tours—radio or cassette.
- · Interpretive signing.
- · Brochures and maps.

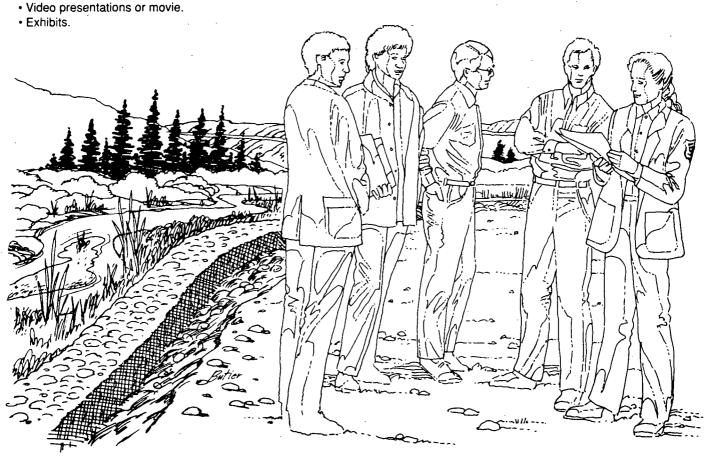
Offsite Media Considerations. When the media are to be used away from the mine site, one should consider using:

• Slide shows.

The appendix outlines a more formal mineral showcase analysis than the one that has just been discussed. A more formal analysis may be required in applying the mineral showcase concept on a regional or national basis. It provides a marketing analysis approach for achieving mineral showcase objectives through a more rigorous examination of who is interested in mineral operations and how best to disseminate information to satisfy audience, agency, and industry needs.

Showcasing—Attention to Details

There are key considerations in mineral activity showcasing, some seemingly insignificant, that can contribute greatly to the success of the effort. These are presented here as checklists for those getting ready to showcase a mineral operation. Most items are the same whether presentations are to be made at the mine site, such as on a tour of the operation, or off the site, such as in the classroom or at a convention booth. Some additional items are specific to onsite presentations.



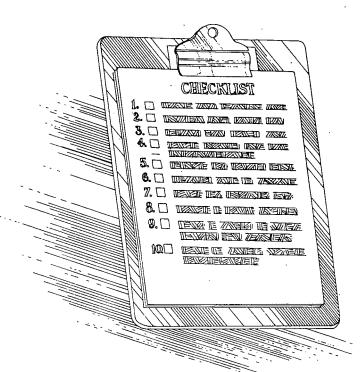


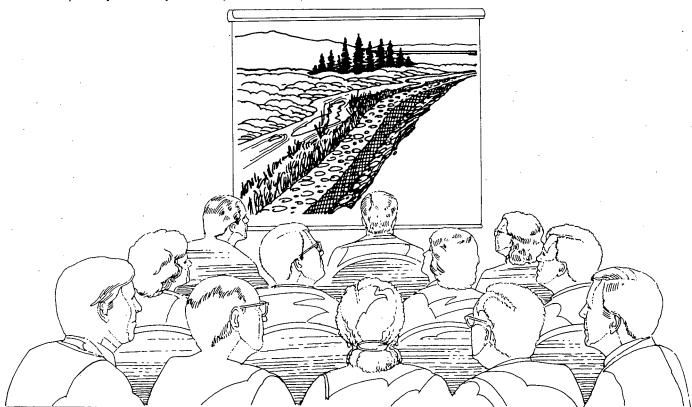
Checklist Items for Onsite and Offsite Presentations

- Tie to mineral showcase objectives and overall message.
- · Pre-meeting material.
- · Variety in mode of delivery.
- Dry-run presentations.
- Training aids and handout material.
- Public address system and other equipment.
- · Inviting the media.
- Coffee breaks and rest room facilities.
- · Accommodating the handicapped.
- Size and layout of meeting rooms and field stops.
- Get-acquainted session.
- · Agenda and logistics information.
- · Need for facilitator.
- · Evaluation of individual presentations.
- · Periodic critique of overall mineral showcase effort.

Checklist of Additional Items for Onsite Presentations

- Safety equipment and protective clothing requirements.
- Transportation modes and capability of site to handle them.
- Providing commentary en route or between stops.
- · Bad-weather alternatives.
- · Lodging and meal accommodations.
- · What to bring/wear.
- · Power microphone.
- · Select stops away from noisy machinery.







The Tour Guide—Key to Success

The tour guide brings people into the mineral showcase area and ensures that the overall message is delivered. When the message is delivered by slide program or other means to an audience away from the area, the tour guide is the presenter of the information. In either case, the tour guide is key to the success of the showcase effort. A good tour guide:

- Has a positive attitude, is cheerful, meets people well, and is concerned with the details of accommodating people.
- Is trained in presenting information to groups, communicates well, and knows how to "draw out" audience questions and concerns.
- Has an indepth knowledge of the mineral operation and the people involved, is supportive of management and its objectives, and is able to deal objectively with audience comments and criticism.

Evaluating Success and Making Improvements

Evaluating success and making necessary improvements must be accomplished on both a long-term and short-term basis.

On a long-term basis there should be periodic evaluations or audits of the overall mineral showcase effort:

- Are the overall mineral showcase objectives discussed earlier being met?
- Are the target audience, message focus, and various media decisions still valid? In other words, are these items consistent with the on-the-ground resources and opportunities inherent in the mineral operation itself? If not, make the necessary changes to keep the showcase effort viable and on track.

On a short-term basis, determining audience reaction to individual presentations or other specific aspects of the program is essential to measuring the success of the showcase effort. This can be accomplished through both written and verbal feedback or critique. It will help evaluate:

- · How people feel about the mineral operation.
- The benefits they obtained from the visit or presentations.

Remember that a good word passed along from satisfied and enlightened members of the audience to friends is the most effective way of letting others know that minerals can be developed in harmony with other natural resources and values.





Appendix—Developing a Formal Mineral Showcase Analysis

In large or complex situations, such as applying the showcase concept on a regional or national basis, consideration should be given to developing a formal mineral showcase analysis. This appendix material provides a framework for achieving showcase objectives by examining in a formal manner who is interested in mineral operations and how best to disseminate information to satisfy audience, agency, and industry desires.

In marketing, this process is called "developing a marketing analysis." Experts consider it a basic step for planning effective marketing strategy and action. It is composed of a market structure analysis and a consumer analysis. Stated simply, a market structure analysis defines the product or service, describes who wants it, and specifies the best way to market it. How this is done depends on a consumer analysis, that is, an understanding of the needs and preferences of the audience or visitor groups.

Market Structure Analysis

A market structure analysis has four components: market definition, market segmentation, market positioning, and market orchestration.

Market definition defines the concepts, resource uses, or information services to be provided or interpreted, as well as the audience to be reached.

Market segmentation further defines consumers by dividing people into fairly homogeneous groups, any one of which may be selected as an intended audience.

Market positioning identifies the position or niche of the product or service within the total Forest Service program

and/or industry effort, the overall minerals program, or the program for a particular minerals group or commodity. This niche is determined by the amount of interest in the product or service compared to other alternatives. For example, people in the regional area may be more interested and concerned about hardrock mining than about energy minerals production.

Market orchestration looks at how the product or service can best be presented to the groups most interested and how much of the product or service should be made available—for example, the number of mineral showcase presentations per year.

Consumer Analysis

Once it has been determined who is in the market for the product or service and which are the target groups, then their needs, perceptions, preferences, and satisfactions must be identified. This involves a consumer analysis. What kinds of images do people have about mineral showcase tours—interesting, boring, primarily for students, etc,? Or, how do people choose between alternatives, such as deciding to participate in a mineral showcase for a coal operation on the National Grasslands rather than reviewing a hardrock mine on the National Forest? Finally, what kinds of benefits are different audience groups obtaining from the different showcase tours—understanding multiple-use management, entertainment, relaxation, etc.? All this information is useful in making decisions about allocating, promoting, and presenting mineral showcase activities.

The same questions should be asked concerning the various presentations making up a showcase effort. How do people decide between a classroom presentation and a guided tour? How does the audience react to and benefit from a dialogue with company officials or natural resource experts, display materials in a conference room, an illustrated talk at the mine site, etc.?



Being able to assess the group size and who comprises the interested groups for each of these products or services, and why they are interested, can help when deciding how many of each product or service to provide. It will also help in promoting and presenting these products and services to specific audiences and in attracting new people. In summary, planning an effective mineral showcase effort consists of the following steps:.

- Define the product or service in terms of basic consumer needs to be met.
- 2. Define the target groups.
- 3. If serving more than one group, differentiate the efforts.
- 4. Analyze consumer behavior. It will help in getting to know the needs and preferences of showcase audiences.

- Seek a differential advantage; that is, whenever possible, identify and highlight the uniqueness of the product or service.
- Reach out to the audience with many tools in many ways—through company staff, brochures, signs, displays, films, tours, etc.
- 7. Integrate the effort so that all activities are coordinated and do not work at cross-purposes.
- 8. Get continual feedback. Evaluate how the effort is doing.
- Perform a periodic audit of the showcase objectives, resources, and opportunities. Be ready to make changes when needed.



"Showcasing Mineral Activities" (FS-441), which summarizes the showcasing concept, is also available to send to potential cooperators. For copies or answers to questions, you may write to the:

Chief, USDA Forest Service P.O. Box 96090 Washington, DC 20090-6090

or to the Regional Forester, USDA Forest Service, at any of the following locations:

Northern Region Federal Bldg. P.O. Box 7669 Missoula, MT 59807

Rocky Mountain Region 11177 West 8th Ave. P.O. Box 25127 Lakewood, CO 80225-2098

Southwestern Region Federal Bldg. 517 Gold Ave., SW Albuquerque, NM 87102

Intermountain Region Federal Bldg. 324 25th St. Ogden, UT 84401 Pacific Southwest Region 630 Sansome St. San Francisco, CA 94111

Pacific Northwest Region 319 SW Pine St. P.O. Box 3623 Portland, OR 97208

Southern Region 1720 Peachtree Rd., NW Atlanta, GA 30367

Eastern Region310 West Wisconsin Ave.
Milwaukee, WI 53203

Alaska Region Federal Office Bldg. P.O. Box 21628 Juneau, AK 99802-1628

☆U.S. GOVERNMENT PRINTING OFFICE: 1989-0-624-533

In cooperation with:





National Stone Association

DEPARTMENT OF AGRICULTURE

Forest Service

GILT EDGE EXPANSION

Black Hills National Forest
Lawrence County, South Dakota
Notice of Intent to Prepare an
Environmental Impact Statement

The Department of Agriculture, Forest Service, will prepare an environmental impact statement in response to a Plan of Operations submitted by Brohm Mining Corporation for an open-pit gold mine, four miles southwest of Deadwood, South Dakota. The proposed project calls for the construction of the tailings dam, tailings pond and portions of the waste rock dumps, mill buildings and slurry conveyors to be built on unpatented National Forest System lands.

The proposed project is a large-scale, open-pit mine development. The development of open pit mining in the Black Hills is currently a controversial issue in the state of South Dakota. For these reasons, it was deemed that this project was a major federal action that could significantly affect the quality of the human environment, and that an environmental impact statement would be prepared.

Some of the issues and alternatives to be analyzed in the environmental impact statement include various alternative locations for the mining structures, impacts to surface and ground water, reclamation of the site, effects on wildlife, effects on other land owners, and the social and economic impacts on local communities.

Further defining of issues, concerns, opportunities and alternatives will occur through scoping with other Federal, State and local agencies, and with interested individuals and organizations. Contacts with these other groups will be through the news media, by letter or personal contact. If public meetings are held, they will be announced through the local media and by personal contact.

Darrel L. Kenops, Forest Supervisor, Black Hills National Forest.

Custer, South Dakota, is the responsible official. The Forest Service is the lead agency.

The analysis is expected to take about one year. The draft environmental impact statement should be available for public review by March 1990. The final environmental impact statement is scheduled to be completed in the summer of 1990.

Written comments and suggestions concerning the analysis should be sent to David E. Blackford, District Ranger, Nemo Ranger District, Black Hills National Forest, 460 Main, Deadwood, SD 57732 by May 15, 1989.

Questions about the proposed action and environmental impact statement should be directed to Mr. Blackford at (605) 578-2744.

DARREL L. KENOPS

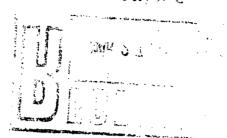
Forest Supervisor

Date

Forest Service Black Hills National Forest Nemo Ranger Dist. 460 Main Street Deadwood, SD 57732

Reply to: 2810 (89-5)

Date: Margh 23 1989



Brohm Mining Company Mr. Doug Stewart P.O. Box 485 Deadwood, SD 57732

Dear Doug:

This letter is to confirm our agreement, on the selection of ENSR as the third party contractor, to prepare the Environmental Impact Statement for the Gilt Edge Expansion Project. After reviewing the other proposals it seems clear that ENSR (formerly ERT) has the experience, knowledge and capability to handle this project. I am looking forward to working with Dr. Moore and his staff.

Sincerely,

DAVID E. BLACKFORD District Ranger

cc: D.Kistler, SO

DM:rw



Forest Service Black Hills National Forest Nemo Ranger Dist. 460 Main Street Deadwood, SD 57732

Reply to: 2810/1950

Date: March 16, 1989

Mr. Doug Stewart Project Manager Brohm Mining Corporation P.O. Box 485 Deadwood, SD 57732

Dear Doug:

I am in receipt of your Plan of Operations for the development of The Gilt Edge Expansion Project. As I have discussed with you previously, an operation of this scope may have a significant impact on the human environment and will require that the Forest Service prepare an environmental impact statement.

I have notified the Forest Supervisor, and a Notice of Intent to prepare an Environmental Impact Statement is being prepared for publication in the Federal Register. This is the first step in the EIS process. Along with the NOI we are also sending out public notices to the local media and key contacts on the Forest and District mailing lists.

Sincerely,

DAVID E. BLACKFORD

District Ranger

cc. D. Kistler

DM

